

Öko-Recherche

Büro für Umweltforschung und -beratung GmbH



F-GAS AND ECODESIGN:

INFLUENCES OF EU LEGISLATION
ON ITALIAN INDUSTRY



9 maggio 2016 / 9 May 2016

09.00 – 18.00

Hotel NH Laguna Palace

Mestre (VE)

Supporting F-gas policies



Service Contract

No 34.0201/2015/716695/SER/CLIMA.C.2

with DG CLIMA

Barbara Gschrey

09 May 2016

Overview

- Consortium of partners
- Implementation of the EU F-gas Regulation
- Technical assessments
 - Assessment of low-GWP alternatives in commercial refrigeration
 - HFC price monitoring
 - Assessment of quota allocation



Consortium

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Büro für Umweltforschung und -beratung GmbH



National Institute for Public Health
and the Environment
Ministry of Health, Welfare and Sport



Prof. Michael Kauffeld



In cooperation with:



Implementation of the EU F-gas-Regulation

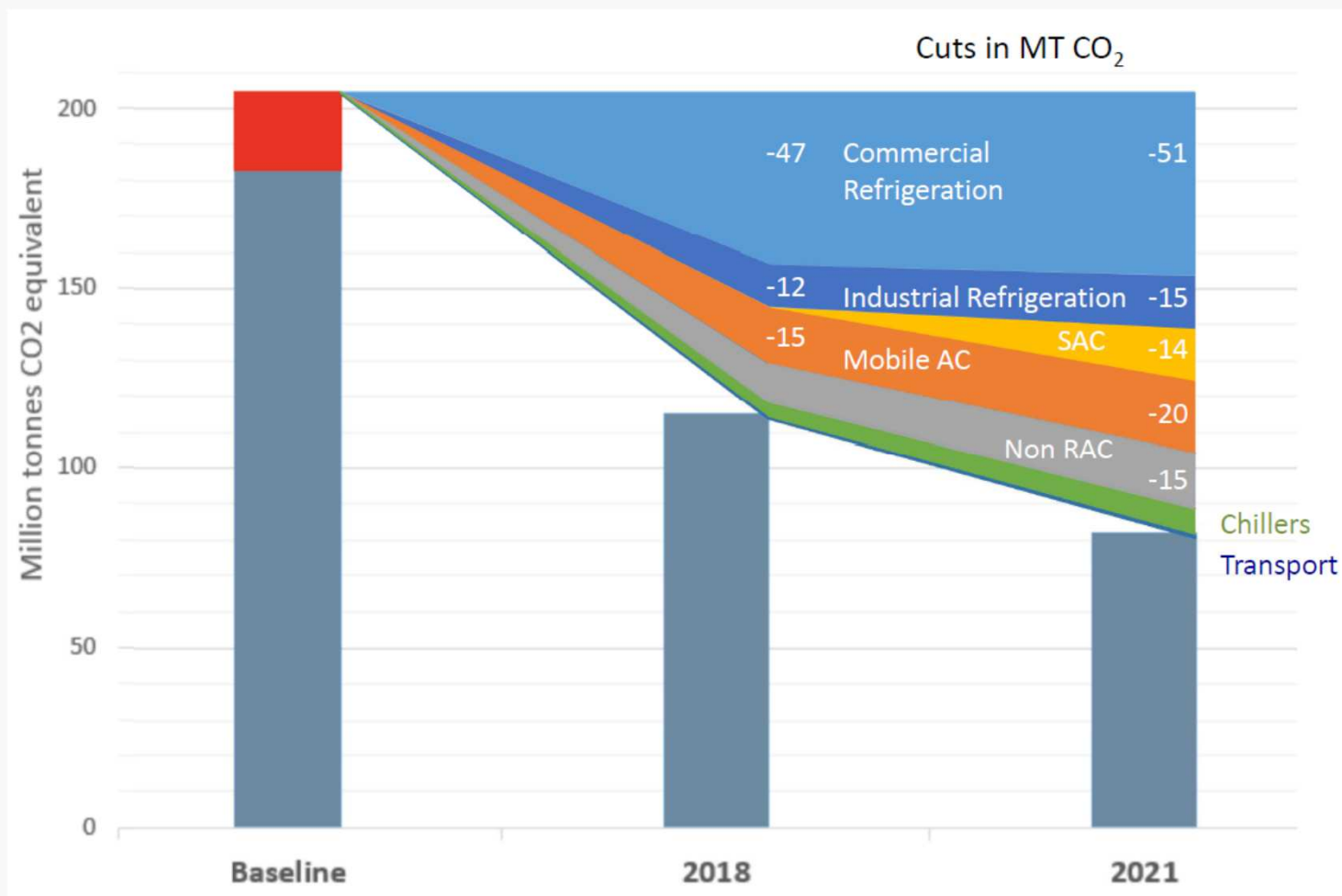
- Regulation 517/2014 in force since 2015
- Phase down:
 - Calculation of quota und reference values
 - Monitoring of HFC prices
 - Assessment of quota allocation mechanism
- Bans: Assessment of low-GWP alternatives in supermarket refrigeration (Annex III(13))

Low-GWP alternatives in supermarkets

- Analysis of affected systems and available technological options
- Questionnaire to gather stakeholder input
- Close dialogue with industry experts



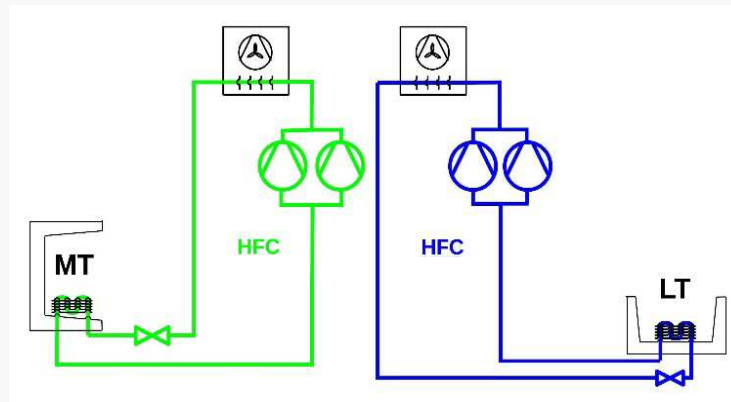
Quota and the HFC phase down: The role of supermarkets



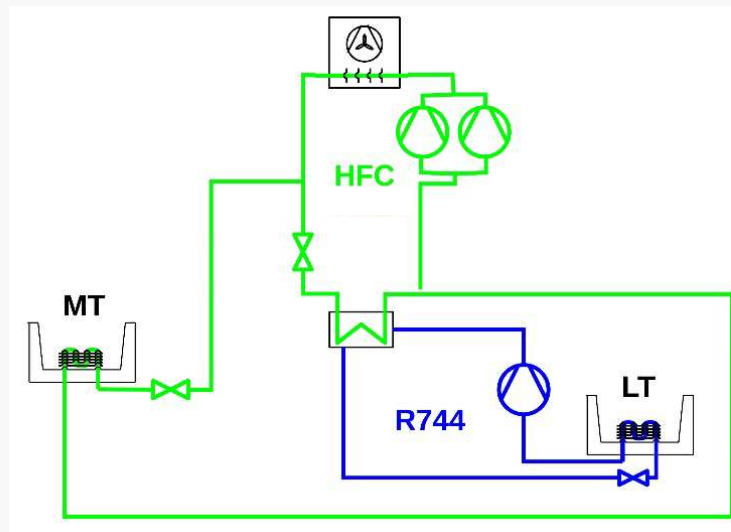
Supermarkets: Bans

- Stationary refrigeration equipment containing or relying on HFCs $\geq 2,500$ GWP from 2020
- Multipack centralized refrigeration systems ≥ 40 kW containing or relying on HFCs ≥ 150 GWP except in specific cascade (then $\geq 1,500$ GWP) from 2022 (Annex III (13))

Supermarkets – prohibited after 2022 ban

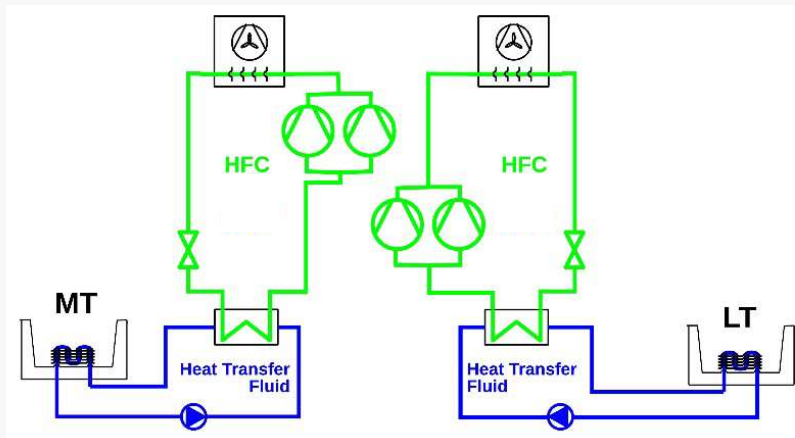


DX-systems

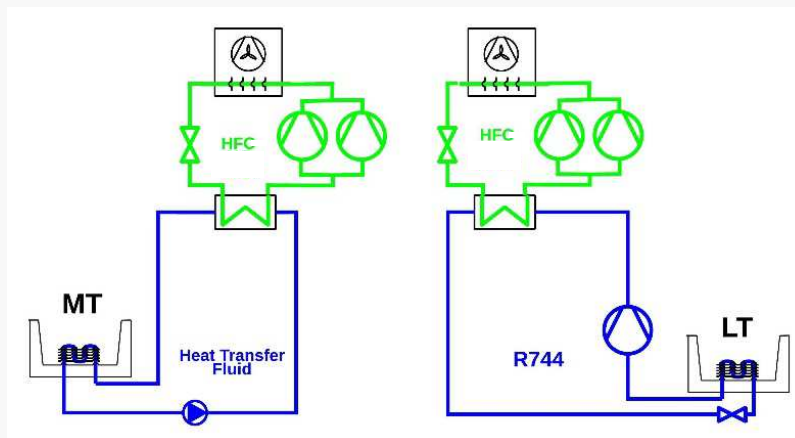


Cascade CO₂

Supermarkets – prohibited after 2022 ban



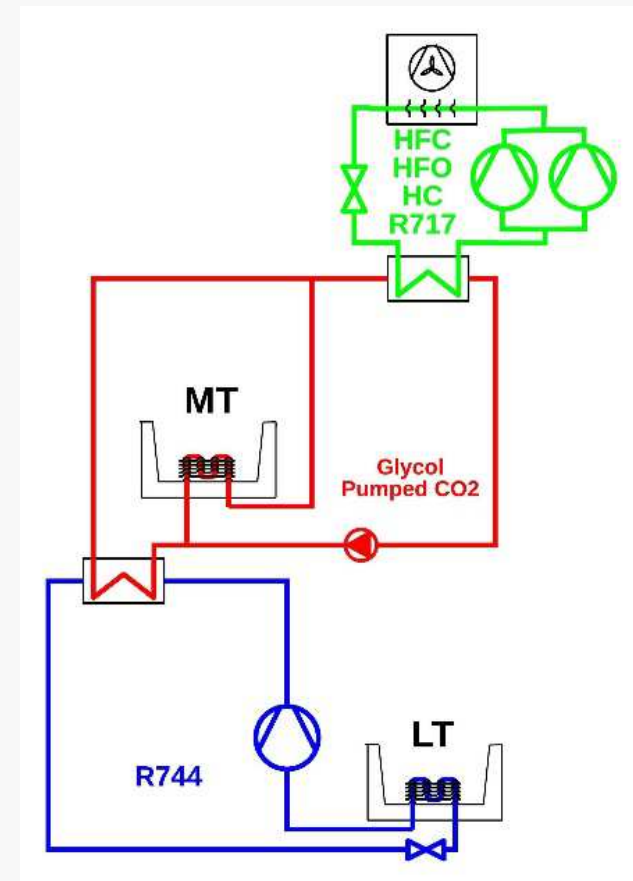
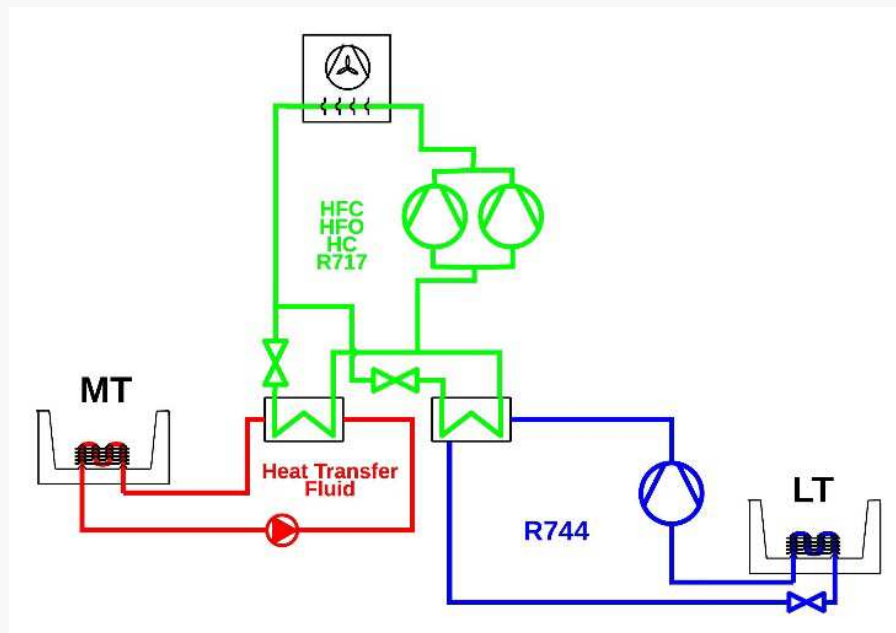
Secondary MT/LT
refrigeration circuit



Secondary MT
refrigeration circuit
and LT CO₂ cascade

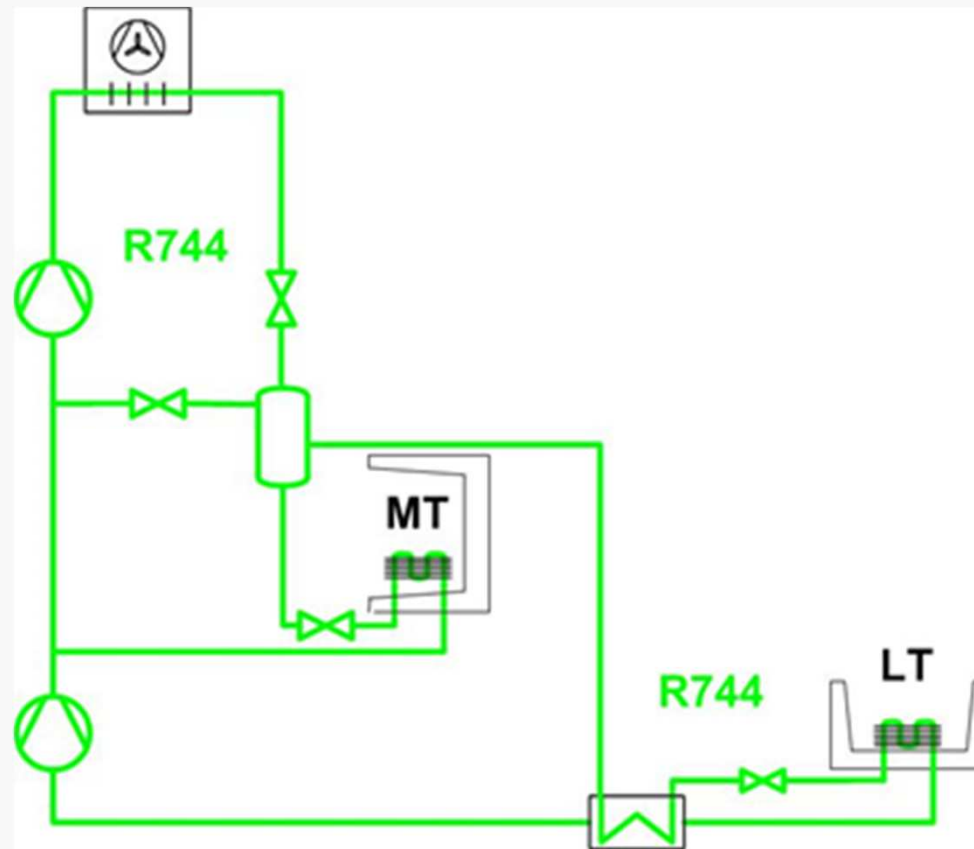
Specific option ≥ 40 kW

- Combined secondary MT refrigeration circuit and LT CO₂ cascade



Specific option ≥ 40 kW

- Transcritical CO₂



Supermarkets – other options

- Options other than multipack centralized ≥ 40 kW:
 - Compact condensing unit with AC function
 - Distributed systems (HFC, R290, HFO-HFC blend, HFO)

Remember additional bans!

The supermarket questionnaire

- Includes 17 questions
- Distributed to manufacturers, servicing companies, associations and NGOs
- Presentations at various industry meetings
- Link: <http://oekorecherche.de/en/node/168>

We need your input!

Low GWP alternatives in commercial refrigeration – next steps

- Questionnaire and evaluation of responses
- Meetings with sector experts
- Draft report by October 2016
- Stakeholder workshop in Brussels in December 2016

We need your input!

Monitoring of HFC prices

- Continued on from current DG CLIMA contract running until June 2016
- Monitoring and analysis of EU HFC market and following price developments (monthly averages) at different points in the value chain
- Quarterly compilations and reports



Monitoring of HFC prices: Stationary applications

- Survey among OEMs/ distributors
- Survey of service companies in cooperation with associations
 - VDKF in Germany
 - AFCE in France
 - AREA
- Prices for authorisations?



We need your input!

Monitoring of HFC prices - questionnaire

Questions relate to:

- Company characteristics
- Types of refrigerants purchased/ sold
- Average price or price index (wholesale and retail price)
- Link:
<http://oekorecherche.de/de/hfc-price-monitoring-questionnaire-oem#>

Monitoring of refrigerant prices

1. Please provide some information about your company:
 - Annual sales (in Euro)
<10 million ☐ 10-50 million ☐ >50-200 million ☐ >200 million ☐
 - Average bulk refrigerant quantity purchased per year (in tonnes)
<50-100 ☐ >100-250 ☐ >250-500 ☐ >500 ☐
2. Please provide information about the development of prices per refrigerant either in
OR ☐ Percent (exclusive VAT; indicate other taxes; take 2014 as baseline)
☐ Euro (€ per tonne; exclusive VAT; indicate other taxes)
➤ Refrigerant, average price/ price development in quarter 4/2015 and 1/2016

Please ensure that the prices you provide – whether relative or absolute – always refer to one and the same container size. Ideally this is the most common size in your company.

Refrigerant	2014	Quarter 4/2015		Quarter 1/2016	
	baseline	Wholesale price	Retail price	Wholesale price	Retail price
R134a	100				
R404A	100				
R407A	100				
R407C	100				
R407F	100				
R410A	100				
R422D	100				
R449A	100				
R448A	100				
R507	100				
R717 (ammonia)	100				
R744 (CO ₂)	100				
R290 (propane)	100				
Others (please name)	100				

Please send back to questionnaire@oekorecherche.de till end of April.
Thank you very much for your input!

Assessment of quota allocation system

- Guiding questions to stakeholders:
 - Do you understand the quota allocation system?
 - Experience among quota holders
 - Experience between quota holders and equipment importers
 - Specific experience of new entrants
- Survey planned for May/June among
 - Registered companies:
 - HFC producers/importers and equipment importers
 - Additional stakeholders?
- Stakeholder workshop in Brussels in December

Please contact us for follow-up!

Thank you for your attention!

Questions...???

b.gschrey@oekorecherche.de

www.oekorecherche.de

Links:

Resources for this project:

<http://oekorecherche.de/en/projects-references/supporting-eu-f-gas-policy>

Informationen regarding EU F-gas policy:

http://ec.europa.eu/clima/policies/f-gas/index_en.htm

